

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>788-20 PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 02/ 06141</b>	International filing date (day/month/year) <b>28/02/2002</b>	(Earliest) Priority Date (day/month/year) <b>28/02/2001</b>
Applicant <b>RESEARCH FOUNDATION OF STATE UNIVERSITY OF N.Y..</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1b

- ☐ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure.
- ☒ because this figure better characterizes the invention.

☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International Application No.

US 02/06141

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61B8/08

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61B G01N G01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal, INSPEC

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LAUGIER P ET AL: "Ultrasound images of the os calcis: a new method of assessment of bone status" ULTRASONICS SYMPOSIUM, 1993. PROCEEDINGS., IEEE 1993 BALTIMORE, MD, USA 31 OCT.-3 NOV. 1993, NEW YORK, NY, USA, IEEE, 31 October 1993 (1993-10-31), pages 989-992, XP010114843 ISBN: 0-7803-1278-3 the whole document --- -/--	1,2, 10-13, 21,23, 26,28,29

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

20 September 2002

Date of mailing of the international search report

07/10/2002

Name and mailing address of the ISA

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Authorized officer

Manschot, J

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LAUGIER P ET AL: "Ultrasound parametric imaging of bone in vivo" ULTRASONICS SYMPOSIUM, 1995. PROCEEDINGS., 1995 IEEE SEATTLE, WA, USA 7-10 NOV. 1995, NEW YORK, NY, USA, IEEE, US, 7 November 1995 (1995-11-07), pages 1137-1140, XP010157487 ISBN: 0-7803-2940-6 the whole document	1,2,10, 13,21, 23,26, 28,29
A	HADJI ET AL.: "Quantitative ultrasound of os calcis in postmenopausal women with spine and hip fractures" JOURNAL OF CLINICAL DENSITOMETRY, vol. 3, no. 3, 2000, pages 233-239, XP008008412 "page 234: "Materials and Methods"	1,2, 10-13, 18-21, 26-30
A	US 6 027 449 A (WIENER SCOTT A ET AL) 22 February 2000 (2000-02-22)  column 20, line 22 - line 58 column 27, line 44 -column 29, line 21	1,2,5-8, 10-13, 21,23, 24,26-30
A	US 5 218 963 A (MAZESS RICHARD B) 15 June 1993 (1993-06-15)  column 9, line 45 -column 64; claim 1	1,2, 15-17, 21,26,27

**FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-29

Determination of a bone property by using confocal ultrasound transducers with high resolution

2. Claim : 30

calculating a bone quality index

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 02/06141

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/06141

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6027449	A	22-02-2000	US 5840029 A	24-11-1998
			US 5603325 A	18-02-1997
			US 5483965 A	16-01-1996
			US 5343863 A	06-09-1994
			US 5119820 A	09-06-1992
			US 5054490 A	08-10-1991
			US 4930511 A	05-06-1990
			US 6277076 B1	21-08-2001
			US 6364837 B1	02-04-2002
			US 2001020128 A1	06-09-2001
			EP 0856284 A1	05-08-1998
			AU 4742596 A	24-12-1996
			EP 0957768 A1	24-11-1999
			WO 9639080 A1	12-12-1996
			EP 0607377 A1	27-07-1994
			JP 6509736 T	02-11-1994
			US 5349959 A	27-09-1994
			WO 9325146 A1	23-12-1993
			US 5042489 A	27-08-1991
			AU 609686 B2	02-05-1991
			AU 3467289 A	23-11-1989
			CA 1323090 A1	12-10-1993
			DE 68929055 D1	16-09-1999
			DE 68929239 D1	14-09-2000
			DE 68929239 T2	25-01-2001
			EP 0341969 A2	15-11-1989
			EP 0721765 A2	17-07-1996
			EP 0728443 A2	28-08-1996
			EP 0920832 A2	09-06-1999
			FI 892282 A	12-11-1989
			IL 90263 A	15-04-1997
			IL 111980 A	17-08-1999
			JP 2104337 A	17-04-1990
			JP 2885377 B2	19-04-1999
			KR 149847 B1	30-03-1999
			US 5099849 A	31-03-1992
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US 5218963	A	15-06-1993	NONE	
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